

## **REMARKS**

The Examiner is thanked for the thorough examination of the present application. The Office Action mailed July 14, 2008 rejected claims 1, 6, 11, and 16. This is a full and timely response to that outstanding Office Action. Upon entry of the amendments in this response, claims 1, 6, 11, and 16 are pending. More specifically, claims 1, 6, 11, and 16 are amended. No new matter is added to the present application by these amendments. These amendments are specifically described hereinafter.

### **I. Present Status of Patent Application**

Claims 1, 6, 11, and 16 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over *Horvitz* (U.S. Pat. No. 6,182,133) in view of *Takagi et al.* (U.S. Pat. No. 5,881,231), in further view of *Barrett et al.* (U.S. Pat. No. 5,727,129). These rejections are respectfully traversed.

### **II. Rejections Under 35 U.S.C. §103(a)**

#### **A. Claim 1**

The Office Action rejects claim 1 under 35 U.S.C. 103(a) as allegedly being unpatentable over *Horvitz* (U.S. Pat. No. 6,182,133) in view of *Takagi et al.* (U.S. Pat. No. 5,881,231), in further view of *Barrett et al.* (U.S. Pat. No. 5,727,129).

**Independent claim 1** recites:

1. A system for facilitating communication between a user and a network of information items, comprising:
  - a remote data storage device for storing the information items, wherein the information items are stored in the form of pages, and wherein the pages contain a plurality of links to other information items;
  - a multi-layer architecture comprising:
    - a client device having a user interface program thereon, for allowing a user to interface with the network and request the information items; and
    - a server device, in communication with the client device and in communication with the remote storage device, for handling information requests from multiple clients and for storing information retrieved from the data storage devices locally in a server cache memory;
  - a data collection module for collecting and storing successive actions of a single particular authenticated user; and
  - a probability module** in communication with the data collection module for calculating a probability for the desirability of the links based on the action of the single particular user and **for comparing the probability to a predetermined threshold value associated with business rules which factor a level of risk of retrieving data that may not be used and the associated hardware cost of cache memory to identify predicted links** and for retrieving the predicted information items associated with the links from the remote data storage devices and enabling the storage of the predicted information items on both the client device layer and the server device layer of the multi-layer architecture in advance of the single particular user's request for the selected information items, the probability module further configured to:
    - update the probabilities assigned to the links with each successive user activity;
    - abort retrieving the predicted information items if the user requests an information item other than the predicted information items;
    - continue retrieving the predicted information items from the remote data storage devices and storing the predicted information items in the server cache memory if the user requests the predicted information item; and

downloads the user requested information item to the  
client from the server cache memory;  
wherein the probability is calculated based solely on the actions of  
the single particular user and not as a member of a larger  
set of users.

(Emphasis added).

Applicant respectfully submits that claim 1 is patentably distinct from the cited art for at least the reason that the cited art does not disclose the features emphasized above. For a proper rejection of a claim under 35 U.S.C. §103, the cited combination of references must disclose, teach, or suggest all elements/features of the claim at issue. *See, e.g., In re Dow Chemical*, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988) and *In re Keller*, 208 U.S.P.Q.2d 871, 881 (C.C.P.A. 1981).

Applicant respectfully submits that the amendments to claim 1 have rendered the rejection moot. Applicant respectfully submits that independent claim 1 is allowable for at least the reason that the combination of *Horvitz*, *Takagi*, and *Barrett* does not disclose, teach, or suggest at least **a probability module for comparing the probability to a predetermined threshold value associated with business rules which factor a level of risk of retrieving data that may not be used and the associated hardware cost of cache memory to identify predicted links.**

Even if, assuming for the sake of argument, *Horvitz* teaches using a user model as part of a larger user community and basing predictions on actions of the user community, *Horvitz* fails to teach a probability module for comparing the probability to a predetermined threshold value associated with business rules which factor a level of risk of retrieving data that may not be used and the associated hardware cost of cache

memory to identify predicted links. Even if, assuming for the sake of argument, *Takagi* teaches using a user model as part of a larger user community and basing predictions on actions of the user community, *Takagi* fails to teach a probability module for comparing the probability to a predetermined threshold value associated with business rules which factor a level of risk of retrieving data that may not be used and the associated hardware cost of cache memory to identify predicted links. Even if, assuming for the sake of argument, *Barrett* teaches using a user model as part of a larger user community and basing predictions on actions of the user community, *Barrett* fails to teach a probability module for comparing the probability to a predetermined threshold value associated with business rules which factor a level of risk of retrieving data that may not be used and the associated hardware cost of cache memory to identify predicted links. As the cited combination of references *Horvitz*, *Takagi*, and *Barrett* does not disclose, teach, or suggest, either implicitly or explicitly, all the elements of claim 1, the rejection should be withdrawn for at least that reason.

B. Claim 6

The Office Action rejects claim 6 under 35 U.S.C. 103(a) as allegedly being unpatentable over *Horvitz* (U.S. Pat. No. 6,182,133) in view of *Takagi et al.* (U.S. Pat. No. 5,881,231), in further view of *Barrett et al.* (U.S. Pat. No. 5,727,129).

**Independent claim 6** recites:

6. A method for facilitating communication between a user and a network of information items, comprising:
- providing a multi-layer architecture comprising a client device and a server device;
  - storing the information items on a remote data storage device, wherein the information items are stored in the form of pages, and wherein the pages contain a plurality of links to other information items;
  - configuring the client device having a user interface program thereon, to allow a user to interface with the network and request a download of the information items;
  - configuring the server device for handling information requests from multiple clients and for storing information retrieved from the data storage devices locally in server cache memory;
  - collecting and storing successive actions of an authenticated single particular user;
  - calculating a probability for the links based on the successive actions of the authenticated single particular user;
  - comparing the probability to a predetermined threshold value associated with business rules which factor a level of risk of retrieving data that may not be used and associated hardware cost of cache memory;***
  - retrieving the information items associated with the links from the remote data storage devices;
  - enabling the storage of the information items on both the client device layer and the server device layer of the multi-layer architecture in advance of the single particular user's request for the selected information items;
  - updating the probabilities assigned to the links with each successive user activity;
  - retrieving the predicted information items if the user requests an information item other than the predicted information items;
  - retrieving the predicted information items from the remote data storage devices; and storing the predicted information items in the server cache memory if the user requests the predicted information item; and
  - downloading the user requested information item to the client from the server cache memory;
- wherein the probability is calculated based solely on the actions of the single particular user and not as a member of a larger set of users.

(Emphasis added).

Applicant respectfully submits that claim 6 is patentably distinct from the cited art for at least the reason that the cited art does not disclose the features emphasized above. Applicant respectfully submits that the amendments to claim 6 have rendered the rejection moot. Applicant respectfully submits that independent claim 6 is allowable for at least the reason that the combination of *Horvitz*, *Takagi*, and *Barrett* does not disclose, teach, or suggest at least **comparing the probability to a predetermined threshold value associated with business rules which factor a level of risk of retrieving data that may not be used and associated hardware cost of cache memory.**

Even if, assuming for the sake of argument, *Horvitz* teaches using a user model as part of a larger user community and basing predictions on actions of the user community, *Horvitz* fails to teach comparing the probability to a predetermined threshold value associated with business rules which factor a level of risk of retrieving data that may not be used and associated hardware cost of cache memory. Even if, assuming for the sake of argument, *Takagi* teaches using a user model as part of a larger user community and basing predictions on actions of the user community, *Takagi* fails to teach comparing the probability to a predetermined threshold value associated with business rules which factor a level of risk of retrieving data that may not be used and associated hardware cost of cache memory. Even if, assuming for the sake of argument, *Barrett* teaches using a user model as part of a larger user community and basing predictions on actions of the user community, *Barrett* fails to teach comparing the probability to a predetermined threshold value associated with business rules which factor a level of risk of retrieving data that may not be used and

associated hardware cost of cache memory. As the cited combination of references *Horvitz*, *Takagi*, and *Barrett* does not disclose, teach, or suggest, either implicitly or explicitly, all the elements of claim 6, the rejection should be withdrawn for at least that reason.

C. Claim 11

The Office Action rejects claim 11 under 35 U.S.C. 103(a) as allegedly being unpatentable over *Horvitz* (U.S. Pat. No. 6,182,133) in view of *Takagi et al.* (U.S. Pat. No. 5,881,231), in further view of *Barrett et al.* (U.S. Pat. No. 5,727,129).

**Independent claim 11** recites:

11. A method for facilitating communication between a user and a network of information items, comprising:
- means for providing a multi-layer architecture comprising a client device and a server device;
  - means for storing the information items on a remote data storage device, wherein the information items are stored in the form of pages, and wherein the pages contain a plurality of links to other information items;
  - means for configuring the client device having a user interface program thereon, to allow a user to interface with the network and request a download of the information items;
  - means for configuring the server device for handling information requests from multiple clients and for storing information retrieved from the data storage devices locally in server cache memory;
  - means for collecting and storing successive actions of an authenticated particular user;
  - means for calculating a probability for the links based on the successive actions of the authenticated single particular user;
  - means for comparing the probability to a predetermined threshold value associated with business rules which***

***factor a level of risk of retrieving data that may not be used and associated hardware cost of cache memory;***

means for retrieving the information items associated with the links from the remote data storage devices;

means for enabling the storage of the information items on both the client device layer and the server device layer of the multi-layer architecture in advance of the single particular user's request for the selected information items;

means for updating the probabilities assigned to the links with each successive user activity;

means for retrieving the predicted information items if the user requests an information item other than the predicted information items;

means for retrieving the predicted information items from the remote data storage devices;

means for storing the predicted information items in the server cache memory if the user requests the predicted information item; and

means for downloading the user requested information item to the client from the server cache memory;

wherein the probability is calculated based solely on the actions of the single particular user and not as a member of a larger set of users.

(Emphasis added).

Applicant respectfully submits that claim 11 is patentably distinct from the cited art for at least the reason that the cited art does not disclose the features emphasized above. Applicant respectfully submits that the amendments to claim 11 have rendered the rejection moot. Applicant respectfully submits that independent claim 11 is allowable for at least the reason that the combination of *Horvitz*, *Takagi*, and *Barrett* does not disclose, teach, or suggest at least **means for comparing the probability to a predetermined threshold value associated with business rules which factor a level of risk of retrieving data that may not be used and associated hardware cost of cache memory.**



Even if, assuming for the sake of argument, *Horvitz* teaches using a user model as part of a larger user community and basing predictions on actions of the user community, *Horvitz* fails to teach means for comparing the probability to a predetermined threshold value associated with business rules which factor a level of risk of retrieving data that may not be used and associated hardware cost of cache memory. Even if, assuming for the sake of argument, *Takagi* teaches using a user model as part of a larger user community and basing predictions on actions of the user community, *Takagi* fails to teach means for comparing the probability to a predetermined threshold value associated with business rules which factor a level of risk of retrieving data that may not be used and associated hardware cost of cache memory. Even if, assuming for the sake of argument, *Barrett* teaches using a user model as part of a larger user community and basing predictions on actions of the user community, *Barrett* fails to teach means for comparing the probability to a predetermined threshold value associated with business rules which factor a level of risk of retrieving data that may not be used and associated hardware cost of cache memory. As the cited combination of references *Horvitz*, *Takagi*, and *Barrett* does not disclose, teach, or suggest, either implicitly or explicitly, all the elements of claim 11, the rejection should be withdrawn for at least that reason.

D. Claim 16

The Office Action rejects claim 16 under 35 U.S.C. 103(a) as allegedly being unpatentable over *Horvitz* (U.S. Pat. No. 6,182,133) in view of *Takagi et al.* (U.S. Pat. No. 5,881,231), in further view of *Barrett et al.* (U.S. Pat. No. 5,727,129).

**Independent claim 16** recites:

16. A first network for facilitating communication between a user and a network of information items, comprising:
- a remote data storage device for storing the information items, wherein the information items are stored in the form of pages, and wherein the pages contain a plurality of links to other information items;
  - a multi-layer architecture comprising:
    - a client device having a user interface program thereon, for allowing a user to interface with the network and request a download of the information items;
    - a server device, in communication with the client device and in communication with the remote storage device, for handling information requests from multiple clients and for storing information retrieved from the data storage devices locally in server cache memory; and
  - the first network;
  - a data collection module for collecting and storing successive actions of an authenticated single particular user; and
  - a probability module** in communication with the data collection module for calculating a probability for the links based on the successive actions of the authenticated single particular user, and **for comparing the probability to a predetermined threshold value associated with business rules which factor a level of risk of retrieving data that may not be used and associated hardware cost of cache memory**, and for retrieving the information items associated with the links from the remote data storage devices and enabling the storage of the information items on both the client device layer and the server device layer of the multi-layer architecture in advance of the single particular user's request for the selected information items;
- wherein the probability module updates the probabilities assigned to the links with each successive user activity;
- wherein the probability module aborts retrieving the predicted information items if the user requests an information item other than the predicted information items;
- wherein the probability module continues retrieving the predicted information items from the remote data storage devices and storing the predicted information items in the server cache memory if the user requests the predicted information item; and

wherein the probability module downloads the user requested information item to the client from the server cache memory; wherein the probability is calculated based solely on the actions of the single particular user and not as a member of a larger set of users.

(Emphasis added).

Applicant respectfully submits that claim 16 is patentably distinct from the cited art for at least the reason that the cited art does not disclose the features emphasized above.

Applicant respectfully submits that the amendments to claim 16 have rendered the rejection moot. Applicant respectfully submits that independent claim 16 is allowable for at least the reason that the combination of *Horvitz*, *Takagi*, and *Barrett* does not disclose, teach, or suggest at least **a probability module for comparing the probability to a predetermined threshold value associated with business rules which factor a level of risk of retrieving data that may not be used and associated hardware cost of cache memory.**

Even if, assuming for the sake of argument, *Horvitz* teaches using a user model as part of a larger user community and basing predictions on actions of the user community, *Horvitz* fails to teach a probability module for comparing the probability to a predetermined threshold value associated with business rules which factor a level of risk of retrieving data that may not be used and associated hardware cost of cache memory. Even if, assuming for the sake of argument, *Takagi* teaches using a user model as part of a larger user community and basing predictions on actions of the user community, *Takagi* fails to teach a probability module for comparing the probability to a predetermined threshold value associated with business rules which factor a level of

risk of retrieving data that may not be used and associated hardware cost of cache memory. Even if, assuming for the sake of argument, *Barrett* teaches using a user model as part of a larger user community and basing predictions on actions of the user community, *Barrett* fails to teach a probability module for comparing the probability to a predetermined threshold value associated with business rules which factor a level of risk of retrieving data that may not be used and associated hardware cost of cache memory. As the cited combination of references *Horvitz*, *Takagi*, and *Barrett* does not disclose, teach, or suggest, either implicitly or explicitly, all the elements of claim 16, the rejection should be withdrawn for at least that reason.

### III. **Miscellaneous Issues**

Any other statements in the Office Action that are not explicitly addressed herein are not intended to be admitted. In addition, any and all findings of inherency are traversed as not having been shown to be necessarily present. Furthermore, any and all findings of well-known art and official notice, or statements interpreted similarly, should not be considered well known for the particular and specific reasons that the claimed combinations are too complex to support such conclusions and because the Office Action does not include specific findings predicated on sound technical and scientific reasoning to support such conclusions.

**CONCLUSION**

In light of the foregoing amendments and for at least the reasons set forth above, Applicant respectfully submits that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that the now pending claims 1, 6, 11, and 16 are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

It is believed that no extensions of time or fees for net addition of claims are required, beyond those which may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor (including fees for net addition of claims) are hereby authorized to be charged to deposit account No. 20-0778.

Respectfully submitted,

/BAB/

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